Educational Outreach

Campers Investigate the Elusive Atom at S.N.A.R.F. Science Camp

More than 80 children in Grand Junction got an unusual and enjoyable experience last summer at the S.N.A.R.F. Science Camp that was sponsored by the U.S. Department of Energy Grand Junction Office (DOE–GJO) and the DOE Idaho National Engineering and Environmental Laboratory. The camp was held July 24 through 27 at a local middle school and was open to elementary-age children entering grades three through six.

S.N.A.R.F. stands for Science, Nature, Astronomy, Radiation, and Flight. The camp offered a fun way to learn about science through fast-paced, hands-on activities that explored the atom and how it applies to many different areas of science, such as archeology, astronomy, radiation, and chemistry. The camp also allowed campers an opportunity to investigate scientific topics that are not normally covered in their school curricula.

Students at the S.N.A.R.F. Science Camp explore the world of science with a variety of hands-on experiments.

Camp activities were designed to encourage basic scientific reasoning and observation skills, along with group cooperation. "The campers involved in the camp left excited about science, while the high school students who served as camp counselors gained valuable experience," said Mike Davis, Physics and Chemistry teacher at Fruita Monument High School and the Grand Junction camp director. The reasons for using high school students as camp counselors are twofold: they bring a lot of energy and enthusiasm to the activities that transfers to the campers, and it gives those students who may be interested in a teaching career an opportunity to see if working with kids is something they want to pursue.

Campers learn to apply the scientific method in a variety of situations. Some of the many activities included building solar ovens that used radiation from the sun to cook s'mores; designing aluminum foil boats into which pennies were dropped to learn about the effect of surface tension; visiting a Starlab, a giant inflatable planetarium, to identify constellations; and a camper favorite—making rockets that are launched using air pressure.

The camp raises enthusiasm about science in pre-high school students. Melissa Schmalz, a *WASTREN, Inc.,* employee at DOE–GJO, said her children loved the camp so much they wanted it to be extended for another week. "My daughter, who usually isn't interested in science, couldn't stop talking about all the fun activities she did at camp," said Ms. Schmalz. Evaluation forms sent to campers' parents were returned with overwhelming positive

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The Western Colorado Science Fair attracted 185 junior-level (grades seven and eight) entries and 40 senior-level (grades nine through twelve) entries from 13 counties on the Western Slope. The top 10 junior entries and the top 6 senior entries competed in the state competition.

Twelve DOE and contractor employees volunteered as judges at the 2000 science fair. “I was personally very impressed with not only the quality of the judging but also the professional manner in which the judging was accomplished,” wrote Forbes Davidson, former co-director of the Western Colorado Science Fair. For the third year, DOE–GJO contractor *WASTREN, Inc.,* was a co-sponsor of the fair. *WASTREN, Inc.,* contributed $500 to the fair and awarded junior and senior division environmental sciences certificates and checks.

During his spring break from school, Williams and his father, Dave Williams, requested a tour of the GJO laboratories. Ron Chessmore, a *WASTREN, Inc.,* employee and Laboratory Manager for the Analytical Chemistry Laboratory, and Sarah Morris, a MACTEC–ERS scientist in the Environmental Sciences Laboratory, explained the projects being worked on, the laboratory and computer equipment used, and the types of analyses being performed in the laboratories. “Brandon was obviously very interested in science, especially chemistry,” said Morris. “I hope the tour helped shape his career goals in some area of science.”❖

S.N.A.R.F. Science Camp (continued from page 28)

comments. One parent wrote, “Every day was packed with activities. I kept thinking, how will they top this tomorrow? But each day had a full and exciting agenda.”

This was the first S.N.A.R.F. Science Camp to be conducted in Grand Junction. The camp originated 2 years ago in a small town in south-central Idaho and was a success. DOE–GJO plans to make the camp an annual event and possibly offer more than one session based on the long waiting list for last year’s camp.❖

The molecular structure of a compound fascinates a student at the S.N.A.R.F. Science Camp.

Computer Donations (continued from page 29)

donated equipment must apply through the S.E.E.D.S. Program main office in Pueblo, Colorado.

This is the first time DOE–GJO has coordinated its computer donation through S.E.E.D.S. “DOE is pleased to learn about the S.E.E.D.S. Program, which provides us with a simplified way to excess our equipment and still have it go to needy schools and qualifying organizations throughout Colorado,” said Audrey Berry, DOE–GJO Public Affairs Specialist.

In addition to the equipment donated to the local school district, AIMTech also donated 17 computer systems, 3 laptops, and 7 printers through S.E.E.D.S. to the Rocky Mountain School of Expeditionary Learning in Denver, Colorado.❖